NAME

magic_open, *magic_close*, *magic_error*, *magic_file*, *magic_buffer*, *magic_setflags*, *magic_check*, *magic_compile*, *magic_load* -- Magic number recognition library.

LIBRARY

Magic Number Recognition Library (libmagic, -lmagic)

SYNOPSIS

```
#include <magic.h>

magic_t
magic_open(int flags);

void
magic_close(magic_t cookie);

const char *
magic_error(magic_t cookie);

int
magic_errno(magic_t cookie);

const char *
magic_file(magic_t cookie, const char *filename);

const char *
magic_buffer(magic_t cookie, const void *buffer, size_t length);

int
magic_setflags(magic_t cookie, int flags);

int
magic_check(magic_t cookie, const char *filename);

int
magic_compile(magic_t cookie, const char *filename);

int
magic_load(magic_t cookie, const char *filename);
```

DESCRIPTION

These functions operate on the magic database file which is described in magic(4).

The function *magic_open*() creates a magic cookie pointer and returns it. It returns NULL if there was an error allocating the magic cookie. The flags argument specifies how the other magic functions should behave:

MAGIC_NONE — No special handling.

MAGIC_DEBUG — Print debugging messages to stderr.

MAGIC_SYMLINK — If the file queried is a symlink, follow it.

MAGIC_COMPRESS — If the file is compressed, unpack it and look at the contents.

MAGIC_DEVICES — If the file is a block or character special device, then open the device and try to look in its contents.

MAGIC_MIME — Return a mime string, instead of a textual description.

MAGIC_CONTINUE — Return all matches, not just the first.

MAGIC_CHECK — Check the magic database for consistency and print warnings to stderr.

MAGIC_PRESERVE_ATIME — On systems that support utime(2) or *utimes*(2), attempt to preserve the access time of files analyzed.

MAGIC_RAW — Don't translate unprintable characters to a \ooo octal representation.

MAGIC_ERROR — Treat operating system errors while trying to open files and follow symlinks as real errors, instead of printing

them in the magic buffer.

The *magic_close*() function closes the magic(4) database and deallocates any resources used.

The *magic_error*() function returns a textual explanation of the last error, or NULL if there was no error.

The magic_errno() function returns the last operating system error number (errno(3)) that was encountered by a system call.

The *magic_file*() function returns a textual description of the contents of the filename argument, or NULL if an error occurred. If the filename is NULL, then stdin is used.

The *magic_buffer*() function returns a textual description of the contents of the buffer argument with length bytes size.

The *magic_setflags*() function, sets the flags described above.

The *magic_check*() function can be used to check the validity of entries in the colon separated database files passed in as filename, or NULL for the default database. It returns 0 on success and -1 on failure.

The *magic_compile*() function can be used to compile the the colon separated list of database files passed in as filename, or NULL for the default database. It returns 0 on success and -1 on failure. The compiled files created are named from the basename(1) of each file argument with ".mgc" appended to it.

The *magic_load*() function must be used to load the the colon separated list of database files passed in as filename, or NULL for the default database file before any magic queries can performed.

The default database file is named by the MAGIC environment variable. If that variable is not set, the default database file name is /usr/share/misc/file/magic.

magic_load() adds ".mime" and/or ".mgc" to the database filename as appropriate.

RETURN VALUES

The function *magic_open*() returns a magic cookie on success and NULL on failure setting errno to an appropriate value. It will set errno to EINVAL if an unsupported value for flags was given. The *magic_load*(), *magic_compile*(), and *magic_check*() functions return 0 on success and -1 on failure. The *magic_file*(), and *magic_buffer*() functions return a string on success and NULL on failure. The *magic_error*() function returns a textual description of the errors of the above functions, or NULL if there was no error. Finally, *magic_setflags*() returns -1 on systems that don't support utime(2), or *utimes*(2) when MAGIC_PRESERVE_ATIME is set.

FILES

/usr/share/misc/file/magic.mime	The non-compiled default magic mime database.
/usr/share/misc/file/magic.mime.mgc	The compiled default magic mime database.
/usr/share/misc/file/magic	The non-compiled default magic database.
/usr/share/misc/file/magic.mgc	The compiled default magic database.

SEE ALSO

file(1), magic(4)

AUTHORS

Mns Rullgrd Initial libmagic implementation, and configuration. Christos Zoulas API cleanup, error code and allocation handling.